

## ULTRA WIDEBAND BGA

### ABSTRACT OF THE DISCLOSURE

An electronic device packaging assembly (10) that includes a ball grid array (60) and specialized construction to be able to operate from DC up to 50 GHz with minimal parasitic losses. The packaging assembly (10) includes a thin base plate (14) made of a suitable rigid material. Power vias (48), signal vias (26) and ground vias (46) are formed through the base plate (14) to be coupled to traces, circuit components, and/or the device (12) within the packaging assembly (10). An impedance matching compensation network (28) provides impedance matching between the device (12) and the signal vias (26). The ball grid array (60) includes a plurality of solder balls (68), including ground solder balls (72), signal solder balls (74) and power solder balls (76), electrically coupled to the appropriate via extending through the base plate (14).